



Montana Department
of Transportation

GUIDELINES & MECHANISMS FOR TRANSPORTATION PARTNERSHIPS

- 
- **Montana Transportation Commission Guidelines on Funding Transportation Partnerships for Project Acceleration and Enhancement**
 - **Local Government Financing Mechanisms Appropriate for Infrastructure Investment**

HE213
.M9G85
1998

Approved April 30, 1998



serving you with pride

**Montana Department
of Transportation**

GUIDELINES & MECHANISMS FOR TRANSPORTATION PARTNERSHIPS



- **Montana Transportation Commission Guidelines on Funding Transportation Partnerships for Project Acceleration and Enhancement**
- **Local Government Financing Mechanisms Appropriate for Infrastructure Investment**

Approved April 30, 1998

Table of Contents

Table of Contents 1

Montana Transportation Commission Guidelines on Funding Transportation Partnerships for Project Acceleration and Enhancement

I.) Introduction 3

II.) Basic Principals 3

III.) Guidelines for Cost Sharing
for Project Acceleration..... 5

Case A.) Urban Principal Arterials 5

Case B.) Developing Suburban and
Ex-Urban Corridors..... 7

Local Government Financing Mechanisms Appropriate for Infrastructure Investment

I.) Introduction 11

II.) Innovative Financing 12

III.) Debt Financing 18

IV.) State Infrastructure Banks 19

V.) Tables 20

Montana Transportation Commission Guidelines on Funding Transportation Partnerships for Project Acceleration and Enhancement

- I.) Introduction**
- II.) Basic Principals**
- III.) Guidelines for Cost Sharing For Project Acceleration**
 - Case A.) Urban Principal Arterials**
 - Case B.) Developing Suburban and Ex-Urban Corridors**

I. INTRODUCTION

In its broadest sense, transportation partnerships are cooperative undertakings that involve joint funding of transportation projects. Within this broad definition, the MDT is involved with partnerships on a wide range of transportation projects from enhancements to the development of new interchanges. Each of these partnerships offers a unique opportunity to maximize scarce state and federal transportation resources to meet the needs of Montana's communities. Consequently, the development of new, mutually beneficial partnerships is encouraged by the Montana Transportation Commission.

The Commission recognizes that partnerships for transportation cost sharing are supported and encouraged by federal programs such as the Federal-Aid Highway Program and programs under the Economic Development Administration. The Commission also recognizes that accelerating or customizing highway improvements is often integral to the economic development initiatives of local governments.

Since opportunities to develop transportation partnerships may be increasing, this document presents methodologies to determine cost sharing for several different cases. The principles and methodologies described will be used to guide development of cost sharing agreements in Montana between the state and local or private partners. A companion document to these guidelines entitled, "Local Government Financing Mechanisms Appropriate for Infrastructure Investment," describes various mechanisms available to a local government which can be used to raise revenue for cost participation.

II. BASIC PRINCIPLES

- The Commission realizes that partnerships to accelerate design and construction, or to add features beyond those strictly needed for a project, may delay the development and delivery of other essential highway projects in the program.



Digitized by the Internet Archive
in 2019 with funding from
Montana State Library

<https://archive.org/details/guidelinesmechan1998mont>

Because of its concern over program disruption, and the Commission's desire to preserve the inherent balance of the highway funding distributed between financial districts; only those projects within the same district as the proposed project will be considered for delay as a result of a transportation partnership.

- So that system needs are not subordinated to local development initiatives, the Commission will enter into transportation partnerships for accelerated project development or customization only for those projects that address transportation system needs and where the project is already in the program.
- Non-cash contributions such as right-of-way donations or project designs will be considered as a component of the total funding package on a case-by-case basis as consistent with federal laws and regulations.
- Each transportation partnership for project acceleration or customization will be described in a project specific memorandum of understanding that at least includes provisions detailing:
 - A. Roles, responsibilities and financial commitments.
 - B. What is required as evidence of local contribution.
 - C. A provision requiring the state to be reimbursed for costs incurred if the local government chooses to stop the project.
 - D. A method to prorate project costs if these costs exceed preliminary estimates used to develop share.
- The basic principle to be followed in negotiating cost sharing agreements is that the cost contribution of each party is proportional to the benefit derived. For example, within an urban area, the state has an interest in regional through traffic

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION
PUBLISHED WEEKLY
CHICAGO, ILL., MAY 1, 1919
Vol. 34, No. 18

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION
PUBLISHED WEEKLY
CHICAGO, ILL., MAY 1, 1919
Vol. 34, No. 18

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION
PUBLISHED WEEKLY
CHICAGO, ILL., MAY 1, 1919
Vol. 34, No. 18

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION
PUBLISHED WEEKLY
CHICAGO, ILL., MAY 1, 1919
Vol. 34, No. 18

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION
PUBLISHED WEEKLY
CHICAGO, ILL., MAY 1, 1919
Vol. 34, No. 18

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION
PUBLISHED WEEKLY
CHICAGO, ILL., MAY 1, 1919
Vol. 34, No. 18

mobility. In this case, the state would contribute funding to the partnership proportional to the demand from regional traffic.

III. GUIDELINES FOR COST SHARING FOR PROJECT ACCELERATION

The Commission recognizes that projects on various parts of the system present unique opportunities and may carry challenges for the development of cost-sharing partnerships. While each project is unique, the following guidelines outline procedures to be used in developing the non-federal, non-state portion of costs for typical projects on various parts of the system and are described in the following cases. Over time, new cases will be added and/or amended, based on experience acquired in developing cost-sharing partnerships. All cases will include the basic principle that the various beneficiaries of project acceleration should contribute a share proportionate to the benefit derived.

Case A: Urban Principal Arterials (Non-Interstate)

Benefits include those to the through traveling public (state benefits), travelers using the corridor as a link within the urban area (local government benefits) and the businesses adjacent to the corridor (economic development benefits).

Urban travel demand models will be used to evaluate the corridor for through movements and to compare this traffic to the demands on the route for intra-urban movements and the attractions in the corridor from retail and other development.

Besides the considerations described under basic principles, the following will guide the negotiation for cost sharing and the memorandum of understanding for this case:

- If the local government does not have a land use plan in place which specifies future land use adjacent to the corridor, MDT staff will assume full build-out into commercial development. If a local land use plan is in place, MDT staff will utilize its underlying assumptions.

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
JANUARY 1961

TO THE HONORABLE CHAIRMAN OF THE BOARD OF TRUSTEES

FROM THE DEPARTMENT OF CHEMISTRY
AND THE UNIVERSITY OF CHICAGO
FOR THE YEAR 1960-1961
The following is a summary of the financial statement of the Department of Chemistry for the year 1960-1961. The statement is prepared in accordance with the requirements of the Board of Trustees and is intended to provide a general overview of the department's financial position. The statement is divided into two main sections: the first section contains the department's income and expenses, and the second section contains the department's assets and liabilities. The income section shows that the department received a total of \$1,234,567 from various sources, including grants, gifts, and departmental funds. The expenses section shows that the department spent a total of \$1,123,456 on salaries, equipment, and other expenses. The assets and liabilities section shows that the department has a net worth of \$123,456.

Very truly yours,
[Signature]

Chairman of the Board of Trustees
The University of Chicago

Chairman of the Department of Chemistry
The University of Chicago

Chairman of the Board of Trustees
The University of Chicago

Chairman of the Department of Chemistry
The University of Chicago

- If the local governments do not have a plan to reduce access onto the corridor, any agreement will include a condition whereby the local government(s) will commit to supporting the Department's access management strategies for the corridor.

The following example demonstrates the method used to establish a local contribution to a transportation partnership to accelerate project development or introduce design features needed to specifically support development on non-Interstate urban arterials.

1. In consultation with those proposing the partnership, develop a preliminary design standard for the facility. (EX: The preliminary design would include four 12' driving lanes, one 14' turn lane, two 8' shoulders = 78').
2. Develop a preliminary cost estimate for the design from step (1). (EX: 78' section, one mile long = \$2 million.)
3. Define a construction standard needed to accommodate regional traffic movements based on best available data including traffic model results. (EX: two 12' driving lanes, one 14' turn lane, two 8' shoulders = 54'.)
4. Calculate the percentage of the preliminary design standard that is beyond the construction standard needed to accommodate regional traffic movement.

$$\text{EX: } \frac{78' - 54'}{78'} = 31\% \quad \begin{array}{l} \text{(Step 1 less Step 3} \\ \text{divided by Step 1)} \end{array}$$

5. Calculate local contribution by applying percentage derived in Step 4 against the cost estimate for the preliminary design standard from Step 2 and round to nearest thousand dollars.

$$\text{EX: } 31\% \times \$2 \text{ million} = \$615,384 = \$615,000$$

1. The first part of the report is devoted to a general survey of the state of the country.

2. The second part contains a detailed description of the principal towns and cities.

3. The third part is devoted to a description of the principal rivers and lakes.

4. The fourth part contains a description of the principal mountains and hills.

5. The fifth part is devoted to a description of the principal forests and woods.

6. The sixth part contains a description of the principal minerals and metals.

7. The seventh part is devoted to a description of the principal fisheries and fowling.

8. The eighth part contains a description of the principal manufactures and trades.

9. The ninth part is devoted to a description of the principal agriculture and husbandry.

10. The tenth part contains a description of the principal population and statistics.

11. The eleventh part is devoted to a description of the principal education and literature.

12. The twelfth part contains a description of the principal religion and customs.

13. The thirteenth part is devoted to a description of the principal arts and sciences.

14. The fourteenth part contains a description of the principal history and antiquities.

15. The fifteenth part is devoted to a description of the principal geography and topography.

16. The sixteenth part contains a description of the principal climate and weather.

Case B: Developing Suburban and Ex-Urban Corridors

This case may include arterials or collectors located either outside of urban limits or within the limits of small urban areas. In all cases, these corridors would have significant potential for economic development and build out. An example is that of a developing strip along a route under state jurisdiction.

The methodology used to determine the non-federal/state share is similar to Case A, except these areas typically do not have travel demand models. To overcome this technical constraint, the following approach will be used to generate estimates of through traffic versus local traffic.

- Absent a comprehensive local land use plan for land adjacent to and accessing the corridor, trip generation estimates will be based on an assumption of complete build out into retail development as consistent with the Institute of Traffic Engineers Trip Generation Manual. If land adjacent to the corridor is included in a locally approved land use plan, trip generation rates will reflect the approved uses.
- Rates for through-traveling traffic percentages will be estimated based on historic rates to be generated through the MDT's traffic count program.
- In cases where a developing corridor parallels a controlled access facility, the Department will generate an estimate of how much traffic will be attracted onto the improved facility from the controlled access highway.

Besides the considerations described under basic principles, the following will guide the negotiation for cost sharing and the memorandum of understanding for this case:

- The Department may consider segmenting and phasing projects to meet the needs of the local governments. Specifically, a planned future state construction project

THE HISTORY OF THE

... of the ...

... of the ...

... of the ...

... of the ...

... of the ...

... of the ...

... of the ...

may include segments with both high economic growth potential and segments that are likely to remain rural and undeveloped throughout the design life of the project.

In order to accommodate the goals of local governments, the segments with high economic growth potential may be accelerated through a partnering agreement and constructed on a different schedule than the rest of the corridor. In these cases, the project limits for accelerated segment and the timetable for its construction would be negotiated amongst the project partners.

- In cases where a longer project is phased so that construction on a segment with high economic development can be accelerated, potential right-of-way contributions may be considered throughout the entire corridor as a contribution toward local share. Any right-of-way contribution would have to be consistent with federal regulations.
- If the local governments do not have a plan to reduce access onto the corridor, any agreement will include a condition whereby the local government(s) will commit to supporting the Department's access management strategies for the corridor.

The following example demonstrates the method used to establish a local contribution to a transportation partnership to accelerate project development or introduce design features needed to specifically support development on developing suburban and ex-urban corridors.

1. In consultation with those proposing the partnership, negotiate which segment(s) of the project would be accelerated and a preliminary design standard for the facility. (EX: The first two miles of a longer project would be accelerated and the preliminary design would include two 12' driving lanes, one 14' turn lane, and two 8' shoulders = 54'.)

1. The first part of the document is a letter from the President of the United States to the Congress, dated January 3, 1801. It contains a statement of the President's views on the state of the Union and the progress of the government.

2. The second part of the document is a report from the Secretary of the Treasury, dated January 10, 1801. It contains a statement of the financial condition of the United States and the progress of the Treasury Department.

3. The third part of the document is a report from the Secretary of the Navy, dated January 15, 1801. It contains a statement of the naval condition of the United States and the progress of the Navy Department.

4. The fourth part of the document is a report from the Secretary of the War, dated January 20, 1801. It contains a statement of the military condition of the United States and the progress of the War Department.

5. The fifth part of the document is a report from the Secretary of the Interior, dated January 25, 1801. It contains a statement of the internal condition of the United States and the progress of the Interior Department.

6. The sixth part of the document is a report from the Secretary of the State, dated February 1, 1801. It contains a statement of the foreign condition of the United States and the progress of the State Department.

7. The seventh part of the document is a report from the Secretary of the War, dated February 5, 1801. It contains a statement of the military condition of the United States and the progress of the War Department.

2. Develop a preliminary cost estimate for the design from step (1). (EX: 54' section = \$1.7 million per mile; 2 miles X 1.7 = \$3.4 million.)
3. Define a construction standard needed to accommodate regional or through-traveling traffic. Essentially, this comparative standard would be used to describe the state responsibility in the partnership and should be based on best available data, including consideration of historic traffic count program data, traffic attributed to adjacent development, and the local government's land use planning goals. (EX: through traveling traffic would be supported by: two 12' driving lands, and two 8' shoulders = 40'.)
4. Calculate the percentage of the preliminary design standard that is beyond the design sufficient to accommodate regional or through-traffic movements. This is done by comparing the preliminary standard from (1) against the standard in (3). (EX: $(54' - 40') \div 54' = 26\%$.)
5. The local contribution would then be calculated by applying the percentage derived in (4) against the cost for the preliminary design standard in (2) and then rounded to the nearest thousand dollars. (EX: $26\% \times \$3.4 \text{ million} = \$884,000$.)

Additional cases may be proposed in the future.

THE UNIVERSITY OF CHICAGO

PH.D. THESIS

THE UNIVERSITY OF CHICAGO

THE UNIVERSITY OF CHICAGO

THE UNIVERSITY OF CHICAGO

THE UNIVERSITY OF CHICAGO

Local Government Financing Mechanisms Appropriate for Infrastructure Investment

- I.) Introduction**
- II.) Innovative Financing**
- III.) Debt Financing**
- IV.) State Infrastructure Banks**
- V.) Tables**

General History of the
County of ...
...
...

...
...
...
...
...

I. INTRODUCTION

Montana's state and local governments are faced with numerous challenges related to delivering and maintaining adequate highway and transportation infrastructure. In almost all communities, and at all levels of government, needs outstrip limited government resources. Consequently, it is essential to explore new approaches to the financing of transportation infrastructure. These new approaches may include inter-governmental or public-private partnerships, as well as new approaches to debt financing. These tools can be used to supplement scarce federal and state resources. In addition, cost sharing partnerships may provide local governments with the ability to influence the timing of highway construction projects so as to support local economic development goals.

This document is intended as a companion document to Montana Department of Transportation Commission Guidelines on Funding Transportation Partnerships. It provides a brief summary or menu of approaches for generating revenue to finance infrastructure improvements. The Montana Department of Transportation stands ready to explore cost sharing possibilities and to actively develop mutually beneficial cost sharing agreements.

For more information or to explore local cost sharing participation please call:

Sandra Straehl, Chief

Program and Policy Analysis

Montana Department of Transportation

Phone: 444-7692 Fax: 444-7671

E-Mail: U8682@LONG.MDT.MT.GOV

II. INNOVATIVE FINANCING

There are several innovative methods that Montana local governments have the option of implementing as fund raising mechanisms to recover transportation improvement costs.

A. Improvement Districts

An improvement district is a legal mechanism through which the costs of public improvements are allocated by special assessment taxes on properties benefitting by the improvement. Improvement districts are generally formed by local governments to allow the construction and financing of the improvement quickly through the sale of special assessment bonds. Since the municipal bonds sold to finance improvement districts are tax exempt, costs to property owners can be less than with private financing. Assessments can be imposed on the basis of acreage, square footage of improvements, front footage, land use, and traffic generation. Three types of improvement districts are commonly formed to provide transportation services to urban or rural portions of communities.

Special Improvement Districts (SID) -- Municipal governments in Montana have the power to create SID's and order the construction or rehabilitation of transportation facilities whenever the governing body judges that the project is in the public interest or convenience. The formation of the SID is subject to the procedural requirements established in Montana statutes (MCA, 7-12-4102).

Rural Improvement Districts (RID) -- The Board of county Commissioners is empowered to order and create RID's whenever the formation of such a district is in the public interest or convenience. These districts are created to extend SID's outside the limits of incorporated towns and cities. The procedural requirements for the formation of RID's are established by Montana statutes (MCA, 7-12-2102).

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY

REPORT ON THE PROGRESS OF RESEARCH
DURING THE YEAR 1964

1. *Introduction*
The research program in the Department of Chemistry during the year 1964 was directed towards the study of the properties of the α -halogeno ketones and their derivatives. The work was carried out in the laboratory of Professor J. H. Goldstein, and the results are reported in this document. The main objectives of the program were to determine the effect of the halogen atom on the physical and chemical properties of the ketones, and to study the mechanism of the reactions of these compounds. The work was carried out in collaboration with the laboratory of Professor R. W. Weisberg, and the results are reported in this document. The main objectives of the program were to determine the effect of the halogen atom on the physical and chemical properties of the ketones, and to study the mechanism of the reactions of these compounds.

2. *Experimental*
The experiments were carried out in the laboratory of Professor J. H. Goldstein, and the results are reported in this document. The main objectives of the program were to determine the effect of the halogen atom on the physical and chemical properties of the ketones, and to study the mechanism of the reactions of these compounds. The work was carried out in collaboration with the laboratory of Professor R. W. Weisberg, and the results are reported in this document. The main objectives of the program were to determine the effect of the halogen atom on the physical and chemical properties of the ketones, and to study the mechanism of the reactions of these compounds.

3. *Results and Discussion*
The results of the experiments are reported in this document. The main objectives of the program were to determine the effect of the halogen atom on the physical and chemical properties of the ketones, and to study the mechanism of the reactions of these compounds. The work was carried out in collaboration with the laboratory of Professor R. W. Weisberg, and the results are reported in this document. The main objectives of the program were to determine the effect of the halogen atom on the physical and chemical properties of the ketones, and to study the mechanism of the reactions of these compounds.

Multi-Jurisdictional Improvement District -- This procedure enables the establishment of improvement districts with boundaries extending across numerous participant jurisdictions. These districts are established to fund highway improvements that extend across corporate limits, urban limits, or county lines. The formation of this district is subject to the procedural requirements established in Montana statutes (MCA, 7-11-1101).

B. Tax Increment Financing (TIF)

Similar to an improvement district, a TIF district is a designated area where property taxes support the construction of a new facility. The difference is that the new facility is typically financed through revenue bonds that are paid off through a property tax assessed against the increase in property values (incremental property value) after the establishment of a base taxable value. The procedural requirements for the formation of TIF's are established by Montana statutes (MCA, 7-15-4282).

An inhibiting factor in designating a TIF is that the district must be declared as "blighted" which limits many areas from qualifying. The statute, however, could be legislatively changed to provide more flexibility for local governments to designate eligible districts in order to support capital improvement projects.

C. Development Impact Fees

Developer exactions and fees allow growth to pay for itself. These fees enable localities to defray the cost of improvements needed to accommodate an increase in demand for public services. Developers of new properties are often required, by local governments, to provide a portion of the added transportation system capacity necessitated by their development, or to make a contribution to the body responsible for implementing the system improvements.

Establishment of an equitable fee structure is required to assess fees based on the development's impact to the transportation system. Such a fee structure could be based on the number of additional vehicle trips generated, square footage of floor space, or number of parking places. The procedural requirements for the formation of development impact fees are established by Montana statutes (MCA, 76-3-510).

D. Local Option Taxes

Many states enable localities to impose a variety of local taxes to support road construction and maintenance. Generally the tax must be imposed on a jurisdiction wide basis and approved by a local referendum. Montana law currently authorizes three taxes that can be imposed at the local government level: a gasoline tax, a vehicle tax, and a tax on retail sales and services in certain localities (the resort tax). The state allows certain flexibility in the levying of fees by local governments.

Local Option Gasoline Tax -- Montana permits counties to establish a local gasoline tax of up to two cents per gallon. The tax was authorized in 1979 and is codified in Montana statutes (MCA, 7-14-301). The tax must be approved by referendum and be collected county wide. This type of fund could provide means for many transportation improvements within each locality. The primary advantage offered by this mechanism is that users of the transportation system are taxed according to their use of this system. Because this tax requires a referendum, transportation improvement projects using this option must have multi jurisdictional support and voters must perceive benefit from the improvement. To date, the local option gasoline tax has not been used by a Montana County.

Local Option Resort Tax -- The resort tax is a tax on the retail value of all goods and services sold within the resort community. The law is codified in Montana statutes (MCA, 7-6-4461). A key element of the resort tax law is that the area must derive a major portion of its economic well-being from businesses catering to tourists. In Montana, the establishment of a local option resort tax may be initiated by a written petition to the board of county commissioners. The resort tax option (not to exceed 3%) must be submitted to the electorate of the resort community or area and be approved by a majority. In 1985, the town of West Yellowstone successfully obtained legislation to implement a local option resort tax and used the revenues to improve transportation facilities within their community. Other communities in Montana using this local option tax are Big Sky, St. Regis, Virginia City, and Whitefish.

Local Option Vehicle Tax -- The local option vehicle tax was authorized initially in 1987 and has since been reauthorized several times. The current tax is codified in Montana statutes (MCA, 61-3-537) and allows up to 0.5% tax on vehicles subject to a property tax. The governing body of a county may impose a local vehicle tax for a fiscal year after conducting a public hearing on the proposed resolution. The advantage offered by this tax mechanism is that it affects only transportation system users and does not require voter approval. Currently, 41 counties in Montana impose this local option tax. The majority of these funds are used to support district courts and other social service responsibilities of the counties. While it is allowable, these funds are not typically used for infrastructure.

E. In-Kind Contributions

Private donations of money, property, right-of-way, or services can be used to offset all or part of the local portion of a project cost. Private donations can be

CONTENTS

ORIGINAL ARTICLES
The Effect of the Diet on the Blood Sugar in the Normal Individual
The Effect of the Diet on the Blood Sugar in the Diabetic Individual

REPORTS
The Effect of the Diet on the Blood Sugar in the Normal Individual

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION
PUBLISHED WEEKLY
CHICAGO, ILL., MAY 1, 1919
Vol. 34, No. 19

CONTENTS

ORIGINAL ARTICLES
The Effect of the Diet on the Blood Sugar in the Normal Individual
The Effect of the Diet on the Blood Sugar in the Diabetic Individual

REPORTS
The Effect of the Diet on the Blood Sugar in the Normal Individual

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION
PUBLISHED WEEKLY
CHICAGO, ILL., MAY 1, 1919
Vol. 34, No. 19

CONTENTS

ORIGINAL ARTICLES
The Effect of the Diet on the Blood Sugar in the Normal Individual
The Effect of the Diet on the Blood Sugar in the Diabetic Individual

REPORTS
The Effect of the Diet on the Blood Sugar in the Normal Individual

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION
PUBLISHED WEEKLY
CHICAGO, ILL., MAY 1, 1919
Vol. 34, No. 19

CONTENTS

ORIGINAL ARTICLES
The Effect of the Diet on the Blood Sugar in the Normal Individual
The Effect of the Diet on the Blood Sugar in the Diabetic Individual

REPORTS
The Effect of the Diet on the Blood Sugar in the Normal Individual

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION
PUBLISHED WEEKLY
CHICAGO, ILL., MAY 1, 1919
Vol. 34, No. 19

CONTENTS

ORIGINAL ARTICLES
The Effect of the Diet on the Blood Sugar in the Normal Individual
The Effect of the Diet on the Blood Sugar in the Diabetic Individual

REPORTS
The Effect of the Diet on the Blood Sugar in the Normal Individual

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION
PUBLISHED WEEKLY
CHICAGO, ILL., MAY 1, 1919
Vol. 34, No. 19

effective in areas where financial conditions do not permit local governments to implement the transportation improvement themselves. Right-of-way donations can be especially beneficial if the project is not needed for some time and there is a chance that encroaching development will reduce the likelihood of acquiring the land at a reasonable cost at a latter date. Services, such as engineering staff to develop technical project designs are other ways for a community to offset its local cost share for a state highway improvement. Contributions of this type would have to be negotiated with the Montana Department of Transportation on a case by case basis.

F. Non-Profit Corporations

A non-profit development corporation (operating under Section 501(c) of the IRS code) could serve as a vehicle through which businesses that directly benefit from the improvements could make donations to the project. In return, the contribution is viewed by the IRS as "a cost of doing business" which can reduce the businesses' tax liability.

G. Other Innovative Funding Methods

Some of the other forms of taxes and user fees used by local governments to finance transportation improvements are listed below. While used in other parts of the country, in Montana these methods of financing capital improvements may be difficult to implement, lack public support, or require legislative action. However, if interest is expressed they could be pursued.

Payment in Lieu of Taxes/Fees--Under this option, a developer would have certain taxes abated and/or fees waived in return for direct payment in support of an improvement. Montana would require legislative action permitting use of this financing mechanism.

THE UNIVERSITY OF CHICAGO

DEPARTMENT OF CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

Toll Financing--Generally, the authority to develop toll facilities is derived from state enabling legislature. Tollways are almost always financed through the issuance of debt and are a direct fee charged to users of a transportation facility. The NHS Designation Act of 1995 increases the eligible maximum limit of a federal loan to a toll project from 50%-50% to 80%-20% and permits states to set an interest rate at any level from 0% to a market level that makes a toll project feasible. Given Montana's demographic, political, and economic environment, toll financing has not been a viable option.

Local Option Sales Tax --Some states permit a local option sales tax up to a set maximum to be used for economic development and transportation projects. A local option sales tax has not been applied in Montana.

Employer Payroll Tax --Payroll taxes are very sensitive to local economic conditions. In Montana, these taxes are not authorized at the local level.

Local Income Tax--Relatively few states have authorized the use of income taxes at the local level.

Dedicated Property Tax --These taxes usually go to the general fund and are then appropriated for transportation purposes. Some cities in other states have succeeded in getting voter approval for a dedicated property tax for transportation improvement.

Severance Tax --Severance tax can be imposed on resource extracting industries and used to cover the cost of providing roads and other transportation infrastructure. In 1995 Montana legislature repealed the statute allotting 12% of the state's coal severance tax toward transportation facilities. The Montana Coal Board may allocate these funds to certain counties for uses that include infrastructure improvements.

III. DEBT FINANCING

Issuing municipal bonds is another method commonly used by Montana local government agencies to recover costs of transportation improvement projects. Generally, there are four types of municipal bond offerings used in Montana. The following narrative briefly defines each of these bond types.

A. General Obligation Bonds

General obligation bonds pledge the unlimited taxing power and full faith and credit of the issuing government to meet the required principal and interest payments. State statutes limit the amount of general obligation debt that a community may incur to 28 percent of the community's taxable value. Similar limitations are placed on counties, which may not exceed 11.25 percent of their taxable value, and on city-county consolidated governments, which may not exceed 39 percent of the taxable value of the property subject to taxation. These bonds are most often used to finance capital projects which benefit the entire community over a long period of time (generally 20 years). An election is required to obtain voter approval prior to the issuing process. The bond issue election is brought about by the presentation of a petition signed by a percentage of voters (usually 15%) or by the unanimous consent of the governing body.

B. Revenue Bonds

These bonds pledge the revenue from a particular source (most often the revenue from the facility to be constructed) to meet the principal and interest payments. The bonds are issued without the full faith and credit of the issuing government. The debt a community undertakes by the issuance of revenue bonds is not subject to Montana limitations on bonded indebtedness. Absent any type of revenue generating roads in Montana, this type of bond is not feasible to finance a

1. The first part of the paper is devoted to a general discussion of the problem.

2. The second part is devoted to a detailed analysis of the case.

3. The third part is devoted to a discussion of the results and their implications.

4. The fourth part is devoted to a conclusion.

5. The fifth part is devoted to a discussion of the results and their implications.

6. The sixth part is devoted to a conclusion.

7. The seventh part is devoted to a discussion of the results and their implications.

community's transportation improvements but may be useful for other types of public works projects.

C. Special Assessment Bonds

Special assessment bonds are issued to pay for public improvements where the property benefitted by the improvements can be identified. The principal and interest payments are made from a special assessment on the identified properties.

These bonds are issued in conjunction with the formation of special improvement districts, and are typically backed by special improvement district or rural improvement district revolving funds. This mechanism has successfully been used by Montana communities in forming improvement districts.

D. Refunding Bonds

These bonds are issued to retire an already outstanding bond and do not represent a different method of financing a new project. The bonds may be either general obligation bonds or revenue bonds, and are issued to: 1) shorten the term of the outstanding bond issue; 2) take advantage of more favorable interest rates; 3) eliminate restrictive covenants on the primary issue; 4) reorganize the maturity schedule of a bond issue; or 5) consolidate community debt.

IV. STATE INFRASTRUCTURE BANKS

Depending on the outcome of pending legislation the Department of Transportation may have the option to establish an infrastructure bank with a portion of its federal highway funds. If established, it could be used to enhance the bonding position of a local government.

Nationwide, infrastructure banks have also been used to loan funds to highway construction projects that have an associated revenue stream such as a toll.

CONTENTS
ORIGINAL ARTICLES
The Effect of the Diet on the Blood Sugar in the Normal Individual
The Effect of the Diet on the Blood Sugar in the Diabetic Individual
The Effect of the Diet on the Blood Sugar in the Obese Individual

REPORTS
The Effect of the Diet on the Blood Sugar in the Normal Individual
The Effect of the Diet on the Blood Sugar in the Diabetic Individual
The Effect of the Diet on the Blood Sugar in the Obese Individual

REVIEW
The Effect of the Diet on the Blood Sugar in the Normal Individual
The Effect of the Diet on the Blood Sugar in the Diabetic Individual
The Effect of the Diet on the Blood Sugar in the Obese Individual

DISCUSSION
The Effect of the Diet on the Blood Sugar in the Normal Individual
The Effect of the Diet on the Blood Sugar in the Diabetic Individual
The Effect of the Diet on the Blood Sugar in the Obese Individual

CONCLUSIONS
The Effect of the Diet on the Blood Sugar in the Normal Individual
The Effect of the Diet on the Blood Sugar in the Diabetic Individual
The Effect of the Diet on the Blood Sugar in the Obese Individual

REFERENCES
The Effect of the Diet on the Blood Sugar in the Normal Individual
The Effect of the Diet on the Blood Sugar in the Diabetic Individual
The Effect of the Diet on the Blood Sugar in the Obese Individual

INDEX
The Effect of the Diet on the Blood Sugar in the Normal Individual
The Effect of the Diet on the Blood Sugar in the Diabetic Individual
The Effect of the Diet on the Blood Sugar in the Obese Individual

ADVERTISING
The Effect of the Diet on the Blood Sugar in the Normal Individual
The Effect of the Diet on the Blood Sugar in the Diabetic Individual
The Effect of the Diet on the Blood Sugar in the Obese Individual

NOTES
The Effect of the Diet on the Blood Sugar in the Normal Individual
The Effect of the Diet on the Blood Sugar in the Diabetic Individual
The Effect of the Diet on the Blood Sugar in the Obese Individual

EDITORIAL
The Effect of the Diet on the Blood Sugar in the Normal Individual
The Effect of the Diet on the Blood Sugar in the Diabetic Individual
The Effect of the Diet on the Blood Sugar in the Obese Individual

DEPARTMENTS
The Effect of the Diet on the Blood Sugar in the Normal Individual
The Effect of the Diet on the Blood Sugar in the Diabetic Individual
The Effect of the Diet on the Blood Sugar in the Obese Individual

QUESTIONS
The Effect of the Diet on the Blood Sugar in the Normal Individual
The Effect of the Diet on the Blood Sugar in the Diabetic Individual
The Effect of the Diet on the Blood Sugar in the Obese Individual

ANSWERS
The Effect of the Diet on the Blood Sugar in the Normal Individual
The Effect of the Diet on the Blood Sugar in the Diabetic Individual
The Effect of the Diet on the Blood Sugar in the Obese Individual

REMARKS
The Effect of the Diet on the Blood Sugar in the Normal Individual
The Effect of the Diet on the Blood Sugar in the Diabetic Individual
The Effect of the Diet on the Blood Sugar in the Obese Individual

NOTES
The Effect of the Diet on the Blood Sugar in the Normal Individual
The Effect of the Diet on the Blood Sugar in the Diabetic Individual
The Effect of the Diet on the Blood Sugar in the Obese Individual

V. TABLES

The attached tables summarize alternative financing mechanisms and briefly describe possible approaches available through bond financing.

MDT staff is available for further discussion on any of the approaches briefly discussed in this document.

THE JOURNAL OF THE ROYAL ANTHROPOLOGICAL INSTITUTE

Vol. 42, Part 1, 1912

THE JOURNAL OF THE ROYAL ANTHROPOLOGICAL INSTITUTE

Vol. 42, Part 1, 1912

TABLE 1

Alternative Financing Mechanism		Description	Disadvantages
Improvement Districts	Special Improvement District (SID)	An improvement district is a property improvement mechanism to finance improvement through the sale of special district bonds.	<ul style="list-style-type: none">- Places burden on new development- Costs associated with administration of the improvement district may be quite high- Improvement districts may cause assessment to be made against some residents who do not or cannot afford the project- Significant delays may occur as a result of protest from individuals thus contributing to project costs- Bailout by municipal or county government may become necessary should an improvement district fail to meet its financial obligation
	Rural Improvement District (RID)	Assessments can be levied on the acreage, square footage, front footage, land use, etc. on a bond basis.	
	Multi-Jurisdictional Improvement District	Three types of improvement districts are commonly formed to provide services to urban, rural, and suburban communities.	
Tax Increment Financing (TIF)		A TIF district is a designated area where property taxes support the cost of a new facility.	<ul style="list-style-type: none">- Tax increment bonds may not be as secure as full faith and credit bonds- With no economic upswing, the burden falls indirectly on new development- This district must be declared as "blighted" which limits many areas from qualifying
Development Impact Fees		Impact fees are generally levied on developers by local government for a portion of the added capacity.	<ul style="list-style-type: none">- The revenue stream is dependent on new development- Challenges by developers on extended uses are likely
Local Option Taxes	Gasoline Tax	Gasoline taxes are levied on the gasoline system are imposed on a jurisdiction by the state or approved by a local government.	<ul style="list-style-type: none">- Must have multi jurisdictional support- Requires a referendum- May contribute to border city effect -- tax should be levied countywide
	General Sales Tax	Option vehicle tax does not require state approval). Montana has three local option taxes at the local level: <ul style="list-style-type: none">- gas tax- vehicle tax, and- resort tax	<ul style="list-style-type: none">- Tax rate differentials among jurisdictions may encourage purchase of goods and services outside of taxing jurisdiction- This is a regressive tax by placing a disproportionate burden on low income groups
	Resort Tax	To date, no county has imposed the gas tax. Only five counties (Yellowstone, Big Sky, Park, Gallatin, and Whitefish) have imposed an option resort tax. However, Montana impose a local option resort tax.	<ul style="list-style-type: none">- This method is limited to specific communities that satisfy the requirements of being a "resort" area- Precludes most Montana communities from qualifying for resort tax status
	Vehicle Tax	Vehicle taxes are levied on the transportation system and do not require state approval.	<ul style="list-style-type: none">- The administrative cost to collect this tax is high

TABLE 1

Alternative Financing Mechanism		Description	Purpose	Legality	Advantages	Disadvantages
Improvement Districts	Special Improvement District (SID)	An improvement district is a legal mechanism to finance public improvements through the sale of special assessment bonds.	SIDs are created by municipal governments to allocate the costs of public improvements on properties benefiting by the improvement.	The formation of the SID is subject to the procedural requirements established in Montana statutes (MCA, 7-12-41 and 42).	<ul style="list-style-type: none">- Burden of cost falls directly on property owners benefiting from the improvement- Good revenue stream if district is economically diverse and stable- Has no effect on other areas of the communities- Bonds may be issued without a bond election- The issuance of bonds requires little or no capital from the issuing government	<ul style="list-style-type: none">- Places burden on new development- Costs associated with administration of the improvement district may be quite high- Improvement districts may cause assessment to be made against some residents who do not or cannot afford the project- Significant delays may occur as a result of protest from individuals thus contributing to project costs- Bailout by municipal or county government may become necessary should an improvement district fail to meet its financial obligation
	Rural Improvement District (RID)	Assessments can be imposed on the basis of acreage, square footage of improvements, front footage, land use and traffic generation basis.	The Board of County Commissioners may create a RID to extend transportation services into developing areas adjacent to cities.	The procedural requirements for the formation of RID's are established by Montana statutes (MCA, 7-12-21).		
	Multi-Jurisdictional Improvement District	Three types of improvement districts are commonly formed to provide transportation services to urban, rural portions of communities.	Multi-jurisdictional improvement districts are established to fund highway improvements that extend across corporate limits, urban limits, and/or county lines	The formation of this district is subject to the procedural requirements established in Montana statutes (MCA, 7-11-11).		
Tax Increment Financing (TIF)		A TIF district is a designated area where property taxes support the construction of a new facility.	This tax precludes property owners from paying a new mill rate. Repayment of bonds are financed through the dedication of additional funds derived from increased property values.	The procedural requirements for the formation of TIFs are established by Montana statutes (MCA, 7-15-42).	<ul style="list-style-type: none">- Costs are limited to affected areas- Property owners are not required to pay a higher mill rate.	<ul style="list-style-type: none">- Tax increment bonds may not be as secure as full faith and credit bonds- With no economic upswing, the burden falls indirectly on new development- This district must be declared as "blighted" which limits many areas from qualifying
Development Impact Fees		Impact fees are generally required of developers by local governments to provide a portion of the added transportation system capacity.	These fees enable local governments to defray the cost of public improvements onto developers to accommodate an increase in demand for public services.	Montana statutes (MCA, 76-3-510) of the Montana Subdivision and Planning Act is the only express authority granted to local governments to impose development exactions.	<ul style="list-style-type: none">- The fees allow growth to pay for itself- This method directly distributes costs to the beneficiaries	<ul style="list-style-type: none">- The revenue stream is dependent on new development- Challenges by developers on extended uses are likely
Local Option Taxes	Gasoline Tax	Generally, local option taxes must be imposed on a jurisdiction wide basis and approved by a local referendum (the local option vehicle tax does not require voter approval). Montana law currently authorizes three local option taxes that can be imposed at the local level: <ul style="list-style-type: none">- gas tax- vehicle tax, and- resort tax	Montana law permits counties to establish a local gasoline tax of up to 2 cents/gal to offset transportation improvements.	This tax was authorized in 1979 and is codified in Montana statutes (MCA, 7-14-301)	<ul style="list-style-type: none">- Only users of the transportation system are taxed- Fees vary according to the use of the system (proportional taxation)	<ul style="list-style-type: none">- Must have multi jurisdictional support- Requires a referendum- May contribute to border city effect -- tax should be levied countywide
	General Sales Tax		This tax would allow local governments to defray a part of the cost of improving public services by giving them an optional revenue source to offset the impact of capping their property taxes (I-105).	Currently, Montana does not have any legislation that allows local governments the option of levying a general sales tax.	<ul style="list-style-type: none">- These additional revenues can offset the I-105 tax freeze which has limited the ability of local governments in Montana to finance new improvements	<ul style="list-style-type: none">- Tax rate differentials among jurisdictions may encourage purchase of goods and services outside of taxing jurisdiction- This is a regressive tax by placing a disproportionate burden on low income groups
	Resort Tax	To date, no county has been able to impose the gas tax. Only five communities (West Yellowstone, Big Sky, St. Regis, Virginia City, and Whitefish) implement a local option resort tax. However, 41 counties in Montana impose a local option vehicle tax.	This tax attempts to capture revenue from the traveling public who use transportation facilities to help recoup the cost of maintenance and infrastructure development	The law for general option resort tax is codified in Montana statutes (MCA, 7-6-4461).	<ul style="list-style-type: none">- Shifts costs of providing services to the traveling public- Provides property tax relief (by statute)	<ul style="list-style-type: none">- This method is limited to specific communities that satisfy the requirements of being a "resort" area- Precludes most Montana communities from qualifying for resort tax status
	Vehicle Tax		Counties use this tax for a variety of purposes. This tax provides counties with additional revenues needed to fund the district courts.	The current tax is codified in Montana statutes (MCA, 61-3-537) and allows up to 0.5% tax on vehicles subject to a property tax.	<ul style="list-style-type: none">- This option affects only transportation system users- A local option vehicle tax does not require voter approval	<ul style="list-style-type: none">- The administrative cost to collect this tax is high

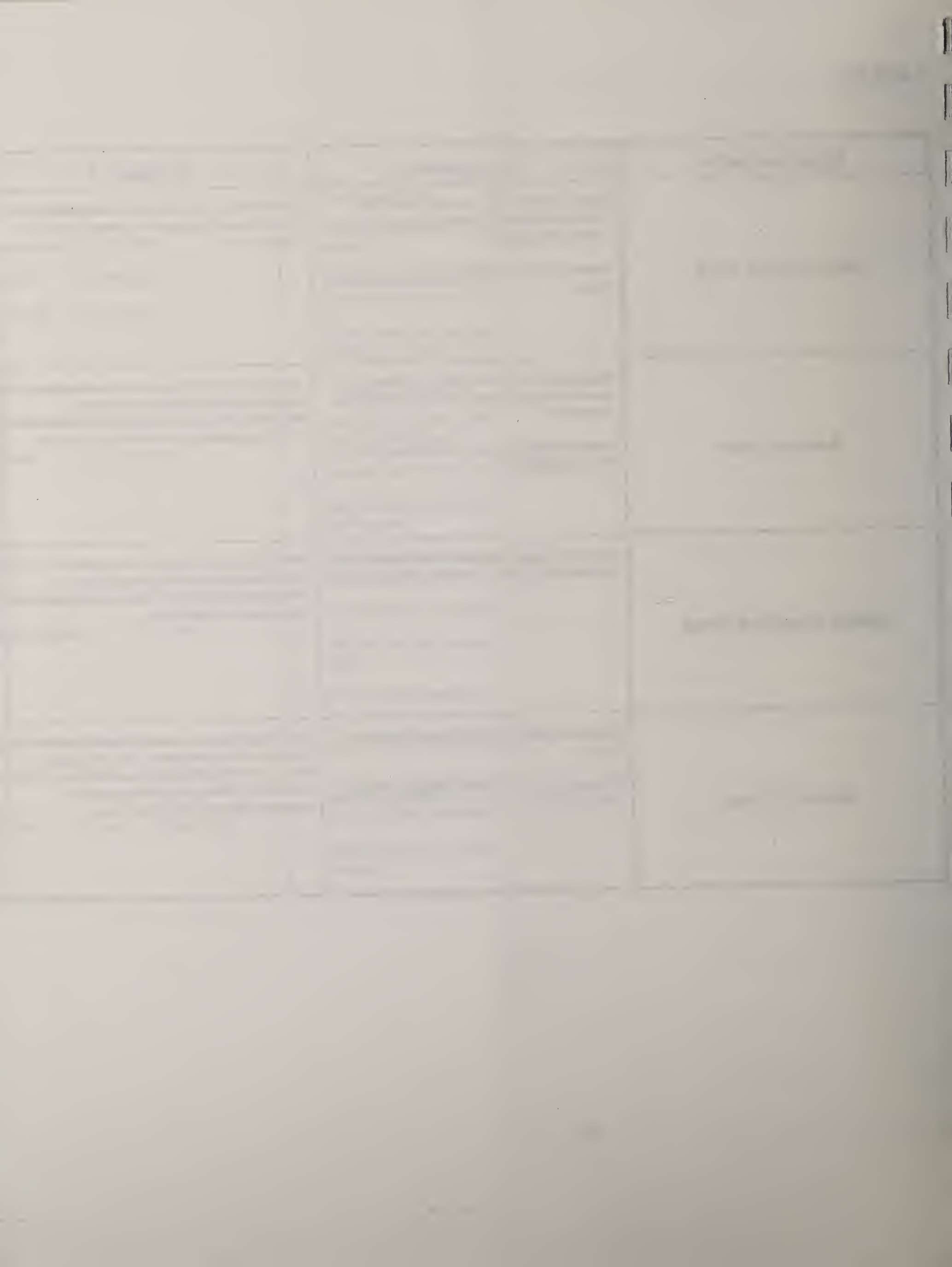
TABLE 2

Municipal Bonds	Des	Disadvantages
General Option Bonds	<p>Bonds pledge the full issuing government to and interest payments</p> <p>Interest rates are typical types.</p>	<ul style="list-style-type: none">• Voter approval is required• Subject to statutory limitations• A default on a bond issue may require the local government to raise taxes
Revenue Bonds	<p>Bonds pledge the revenue source (generally received from constructed).</p> <p>Bonds are issued with the issuing agency.</p>	<ul style="list-style-type: none">• The use of revenue bonds is limited to projects that will be self-supporting• Legal requirements are more complicated than with other bonds
Special Assessment Bonds	<p>Bonds are issued to pay directly on the in which the property</p>	<ul style="list-style-type: none">• Delays are possible due to protests by some impacted property owners• Small projects have a large percentage share of administrative costs• In the event of default, the local government may have to levy additional taxes
Refunding Bonds	<p>Bonds are issued to refund bond.</p> <p>These bonds may be general interest revenue bonds.</p>	<ul style="list-style-type: none">• Cost savings must be significant enough to offset the accompanying administrative costs

Name		Address		City	
John Doe		123 Main St		New York	
Jane Smith		456 Elm St		Los Angeles	
Bob Johnson		789 Oak St		Chicago	
Alice Brown		101 Pine St		Houston	
Charlie Davis		202 Cedar St		Phoenix	
Diana Evans		303 Birch St		San Antonio	
Frank Green		404 Spruce St		San Diego	
Grace Hall		505 Willow St		Dallas	
Henry King		606 Ash St		San Jose	
Ivy Lee		707 Hickory St		Austin	
Jack Miller		808 Sycamore St		Jacksonville	
Karen Wilson		909 Magnolia St		Fort Worth	
Leo White		1010 Dogwood St		Columbus	
Mia Black		1111 Redwood St		Indianapolis	
Noah Gray		1212 Cypress St		San Francisco	
Olivia Blue		1313 Juniper St		Seattle	
Peter Red		1414 Fir St		Denver	
Quinn Yellow		1515 Palm St		Portland	
Sam Green		1616 Maple St		Nashville	
Tina Purple		1717 Oak St		Boston	
Uma Pink		1818 Pine St		San Luis Obispo	
Victor Brown		1919 Cedar St		Honolulu	
Wendy Black		2020 Birch St		Anchorage	
Xavier Gray		2121 Spruce St		Fairbanks	
Yara Blue		2222 Willow St		Sitka	
Zoe Red		2323 Ash St		Ketchikan	

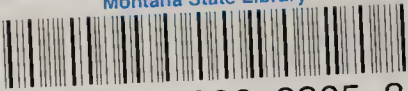
TABLE 2

Municipal Bonds	Description	Purpose	Legality	Advantages	Disadvantages
General Option Bonds	<p>Bonds pledge the full faith and credit of the issuing government to meet the required principal and interest payments.</p> <p>Interest rates are typically lower than other bond types.</p>	<p>These bonds are used by local governments to finance capital projects which benefit the entire community.</p>	<p>Authority to issue bonds:</p> <p>Municipalities: 7-7-4201 MCA</p> <p>Counties: 7-7-2202 MCA</p> <p>City-County: 7-7-107 MCA</p>	<ul style="list-style-type: none">• Lower interest rates• Non-revenue producing projects may be financed• Debt can be retired over the life of the project from an equitable form of taxation• The community has the opportunity to invest the proceeds of the bond issue	<ul style="list-style-type: none">• Voter approval is required• Subject to statutory limitations• A default on a bond issue may require the local government to raise taxes
Revenue Bonds	<p>Bonds pledge the revenue from a particular source (generally receipts from the facility to be constructed).</p> <p>Bonds are issued without full faith and credit of the issuing agency.</p>	<p>Bonds are used by local governments to provide initial financing of facilities or capital improvements that could be self-supporting from revenues generated over the life of the system.</p>	<p>Authority to issue bonds:</p> <p>Municipalities: 7-7-4421 MCA</p> <p>Counties: 7-7-44 & 45 MCA</p>	<ul style="list-style-type: none">• Users pay for the facilities• Not subject to Montana limitations on bonded indebtedness• Voter approval is not required• Default on the issue does not burden the local taxpayers	<ul style="list-style-type: none">• The use of revenue bonds is limited to projects that will be self-supporting• Legal requirements are more complicated than with other bonds
Special Assessment Bonds	<p>Bonds are issued to pay for public improvements in which the property benefited can be identified.</p>	<p>These bonds allow property owners the opportunity to amortize the capital costs of constructing the facility over a number of years at a relatively low interest rate.</p>	<p>General procedures:</p> <p>Municipalities (SIDs): 7-12-41 & 42 MCA</p> <p>Counties (RIDs): 7-12-21 MCA</p>	<ul style="list-style-type: none">• The burden of the costs falls directly on the benefiting property owners• A bond election is not required• Little or no capital is required from the agency• Debt financed is not subject to limitations	<ul style="list-style-type: none">• Delays are possible due to protests by some impacted property owners• Small projects have a large percentage share of administrative costs• In the event of default, the local government may have to levy additional taxes
Refunding Bonds	<p>Bonds are issued to retire an already outstanding bond.</p> <p>These bonds may be general obligation bonds or revenue bonds.</p>	<p>Refunding bonds are generally issued to shorten the term of the bond issue to take advantage of more favorable interest rates, consolidate a community's debt, or eliminate restrictive covenants affecting the primary issue.</p>	<p>Authority to issue bonds:</p> <p>Municipalities: G.O.B. 7-7-4301 MCA Revenue 7-7-4501 MCA</p> <p>Counties: G.O.B. 7-7-2301 MCA</p>	<ul style="list-style-type: none">• No bond election is required• The issuing agency will save interest expenses by issuing new lower yield bonds to pay off higher yield bonds• Debt financed may not be subject to limitations	<ul style="list-style-type: none">• Cost savings must be significant enough to offset the accompanying administrative costs





Montana State Library



3 0864 1006 9305 3

MDT Library



3 9526 01020365 0